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OPD - 2000-01-28
TI - ARRAY ANTENNA FEEDING EQUIPMENT
IN - SUGA TSUYOSHI;SHINTAKU MASAYOSHI
PA - NTT DOCOMO INC;DENKI KOGYO CO LTD
IC - H01Q21/06

POWER FEEDING

TI - Array antenna electric power feeder for vehicle mounted portable telephone, sets up beam tilt angle of array antenna by adjusting phase of supplied power

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PA - (DENK-N) DENKI KOGYO KK
- (NITE) NTT IDO TSUSHINMO KK

IC - H01Q3/30 ;H01Q21/06

AB - JP2001211025 NOVELTY - Array antenna (2) are connected to electric power supply sections (11a-11c) having phase shifters (14a-14c). The electric power transmitted from the supply sections (11b,11c) are of different phases. The phase shifters of the supply sections are adjusted so as to set-up the beam tilt angle of the array antenna.

- USE - For supplying power to array antenna connected to vehicle mounted portable telephone, base station, etc.
- ADVANTAGE - As the beam tilt angle can be changed continuously and smoothly, the versatility of the antenna is improved and the transmitted beam can be concentrated.
- DESCRIPTION OF DRAWING(S) - The figure shows the diagram of array antenna electric power feeder. (Drawing includes non-English language text).
 - Array antenna 2
 - Electric power supply sections 11a-11c
 - Phase shifters 14a-14c
 - (Dwg.1/3)

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TI - ARRAY ANTENNA FEEDING EQUIPMENT
AB - PROBLEM TO BE SOLVED: To largely and continuously change the beam tilt angle of an array antenna by using two-way distributors and phase shifters.
- SOLUTION: In this feeding equipment, plural sets of feeding part 11a, 11b, 11c each consisting of a two-way distributor 13a, 13b, 13c and a phase shifter 14a, 14b, 14c feeds radiation power to the array antenna 2. By feeding the radiation power through the first feeding part 11a and the following second or third part 11b, 11c which are subordinately connected with the first one, the radiation power with different phases is produced, which will be then sent to the elements 2a, 2b, 2c, ..., 2g of the antenna 2. By respectively adjusting the phase shifters in the first, second and third feeding parts so that the radiation power to be fed to the antenna elements can be set out of phase with one another by a certain phase angle, the beam tilt angle θ can be set by the array antenna 2 on the whole.
I - H01Q21/06